

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 11, 13 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,784,180 to Sakai et al. (hereinafter “Sakai”) in combination with U.S. Patent No. 5,550,638 to Ikeda and further in view of U.S. Patent No. 6,434,266 to Kanno et al. (hereinafter “Kanno”). Claims 12, 14<sup>1</sup> and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai in combination with Ikeda.

By this amendment, new claims 18-21 have been added to the application. Support for the subject matter of new claims 18-21 can at least be found on page 10, lines 6-19 of the present specification. Claims 11-16 remain unchanged in the application.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. After amending the claims as set forth above, claims 11-16 and 18-21 are now pending in this application for consideration.

Applicant respectfully submits that each of the pending claims is patentably distinguishable over the cited references as required by § 103. Applicant further submits that none of the cited references, whether considered alone or in combination, discloses Applicant’s claimed image reading method including the step of *storing a digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a black reference data with a light source turned off* as required by independent claims 11, 12, 14 and 16 and including the step of *storing a digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a white reference data with a light source turned on* as required by independent claims 11, 12 and 16. By contrast, the cited references fail to

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<sup>1</sup> On page 28, paragraph number 7 of the Detail Action of the Office Action, claim 14 is rejected as being unpatentable over the combination of Sakai, Ikeda and Kanno. This, however, appears to be an error since the Kanno reference is not used to reject claim 4. Clarification by the Examiner of this point in the next communication is respectfully requested.

disclose, teach or suggest these claimed features. Accordingly, independent claims 11, 12, 14 and 16 and claims dependent therefrom, are patentably distinguishable over the cited references. This distinction will be further described below.

**THE CLAIMS DISTINGUISH OVER THE CITED REFERENCES**

Claims 11-16 stand rejected as being unpatentable over the combination of Sakai and Ikeda or the combination of Sakai, Ikeda and Kanno. In response, Applicants respectfully traverse the rejections of these claims, and submit that these claims are allowable for at least the following reasons.

The framework for the objective analysis for determining obviousness under §103 requires:

1. Determining the scope and content of the prior art;
2. Ascertaining the differences between the claimed invention and the prior art;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

*Teleflex, Inc. v. KSR Int'l Co.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In order to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See MPEP §2143.03.

**The Cited References Do Not Suggest All Claim Recitations**

The cited references do not meet one of the requirements of MPEP § 2143, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

Embodiments of the present invention relate to an image reading method. The image reading method according to independent claim 14 includes the step of preparing a four-line CCD sensor comprising a BK line sensor and R, G and B line sensors. Independent claim 14 also includes the step of *storing a digital monochromatic signal and digital color signals*

*that are output from the BK line sensor and the R, G and B line sensors as a black reference data with a light source turned off.*

Independent claim 16 is also directed to an image reading method including the same preparing and storing steps as independent claim 14 but also includes the step of *storing a digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a white reference data with a light source turned on*. Independent claims 11 and 12 which are narrower in scope than independent claim 16, each includes these claimed steps. With this arrangement, the time required for shading correction and realizing high efficiency and high speed of the image reading operation can be realized (see, Specification, Page 3, lines 12-15). Applicant respectfully submits that the cited references fail to disclose, teach or suggest these claimed steps.

Sakai is directed to an image memory apparatus. The Office Action correctly notes that Sakai fails to disclose the claimed step of preparing a four-line CCD sensor. The Office Action then relies on the Ikeda reference to cure this deficiency. Applicant respectfully disagrees. As a preliminary matter, Applicant respectfully submits that Sakai also fails to disclose, teach or suggest *storing a digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a black reference data with a light source turned off* as required by the claims. Column 1, lines 24-28 highlighted by the Examiner fails to disclose this feature. Sakai merely teaches repeatedly sending data stored in a color image memory apparatus to a digital copying machine to obtain a plurality of color images. This is not what is taught or claimed in the present invention. To the contrary, the present invention teaches that when a fast copy time is given priority at the time of turning on the power of the image forming apparatus, shading correction circuits store digital and monochromatic image signals from the BK line sensor and the R, G and B lines sensors when the shading correction circuits receive reflected light from a white reference plate (white reference) and when the light is turned off, the digital and monochromatic image signals from the lines sensors are stored in shading correcting circuits (black reference) (Specification, page 20, lines 12-25). Sakai fails to disclose teach or suggest anything about storing image signals in shading correcting circuits. Applicant fails to understand the Examiner's explanation on page 8 of the Office Action that attempts to equate Sakai's storing

of data stored in the color image apparatus to the claimed *storing a digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a black reference data with a light source turned off*. There is nothing in Sakai that even discusses storing data when a light source is turned on and off.

Not surprising since Sakai fails to disclose the claimed four-line CCD sensor with a BK line sensor and R, G, and B line sensors, the Sakai reference also fails to disclose, teach or suggest *storing digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a white reference data with a light source turned on* as required by independent claims 11, 12 and 16 for the same reason discussed above regarding the step of storing signals as black reference data.

The Ikeda and Kanno references were relied on for disclosing the steps of preparing the four line CCD sensor and executing a shading correction, respectfully. Applicant respectfully submits that neither Ikeda nor Kanno discloses *storing a digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a black reference data with a light source turned off* and *storing digital monochromatic signal and digital color signals that are output from the BK line sensor and the R, G and B line sensors as a white reference data with a light source turned on* and were not cited for that purpose.

In view of the fact that neither the combination of Sakai and Ikeda nor the combination of Sakai, Ikeda and Kanno discloses each of the claimed steps identified above, these references cannot be said to render obvious the invention which is the subject matter of independent claims 11, 12, 14 and 16. Thus, independent claims 11, 12, 14 and 16 are allowable. Since independent claims 11, 12, 14 and 16 are allowable, claims dependent therefrom, namely claims 13 and 15 as well as new claims 18-21 are also allowable by virtue of their direct or indirect dependence from allowable independent claims 11, 12, 14 and 16 and for containing other patentable features. Further remarks regarding the asserted relationship between any of the claims and the cited reference are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.

In sum, one of the requirements of MPEP § 2143 is not satisfied in the Office Action with respect to any of the claims rejected as obvious because the cited references do not teach each and every element of the present invention. Thus, the present claims are allowable.

The Level of Ordinary Skill In the Art has Incorrectly Been Ascertained

*KSR* did not repeal the *Graham v. John Deere Co.* factors - just the opposite, it reaffirmed them. One of those factors is the requirement that the PTO must resolve the level of ordinary skill in the pertinent art. It is respectfully submitted that the PTO presumes a higher level of skill of the ordinary artisan in this art than was actually present at the time of the invention.

The ordinary artisan would not have had a level of skill sufficient to render the invention obvious to that ordinary artisan. Specifically, before the disclosure of the present invention, the ordinary artisan would not have had the skill to predict that the features of Sakai could be modified in accordance with Ikeda and/or Kanno as is asserted in the Office Action. To the contrary, only the innovator would have had the skill necessary to predict such modification. The ordinary artisan would not have had the skills to arrive at the present invention without instruction from the innovator. The Office Action is silent in regard to addressing the requisite *Grahm* factors.

Lack of Suggestion or Motivation to Modify or Combine the References

The Supreme Court in the *KSR Int'l Co. v. Teleflex, Inc.*,” 127 S.Ct. 1727 (U.S. 2007), recently clarified the standards for obviousness. For example, the Court has stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR* at 1741. In addition, the Court in *KSR* stated that a reason to combine elements should be made explicit. *Id.* at 1740-41.<sup>2</sup>

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<sup>2</sup> “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge

Indeed, the Court approvingly cited *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), for requiring an articulated reason. *Id.* at 1741.<sup>3</sup>

Sakai is devoid of any reason why one of skill in the art would incorporate the teachings of either Ikeda and/or Kanno into Sakai. The Office Action, states that combining the references would “provide an image processing apparatus which can precisely reproduce an original” and “provide a color image processing apparatus and a color image processing method which makes it possible to suitably convert a color.” Thus, the proffered motivation, even assuming that the underlying results do in fact occur from general implementation of the teachings of Ikeda and Kanno, does not mean that the ordinary artisan would have incorporated the features of Ikeda and Kanno into Sakai.

Thus, the PTO has not properly articulated a reason for why one with ordinary skill in the art would combine the teachings of Ikeda, Kanno and Sakai. Because the PTO has not provided sufficient reasons to combine the teachings of Ikeda, Kanno and Sakai , any rejection based on this combination is improper. Accordingly, claims 11-16 are not rendered unpatentable over the prior art.

In summary, because of the lack of suggestion or motivation in the prior art to modify the reference, the first requirement of MPEP § 2143 has not been met and, hence, a *prima facie* case of obviousness has not been established.

Applicant respectfully submits that independent claims 11, 12, 14 and 16, and claims dependent therefrom are patentably distinguishable over the cited references and thus, allowable. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant’s silence as to the Office Action’s comments is not indicative of being in acquiescence to the stated grounds of rejection.

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possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” *Id.* at 1740-41.

<sup>3</sup> “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” *Id.* at 1741.

**CONCLUSION**

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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